

October 29, 2008

Boulder City Council & Open Space Board of Trustees City of Boulder P.O. Box 791 Boulder, CO 80306 303.441.3440

Re: Mountain lion (Puma concolor) study on Boulder Open Space

Dear Boulder City Council and Open Space Board of Trustees:

On behalf of our 9,000 members and activists, thank you for allowing WildEarth Guardians to comment on the Colorado Division of Wildlife's (DOW) "Program Narrative Study Plan for Mammals Research, FY 2008-09 – FY 2013-14" (hereinafter "Plan"). The Plan describes the DOW's prospectus for studying mountain lions on open space on Colorado's Front Range.

As you may be aware, WildEarth Guardians (formerly known as "Sinapu") has been a major stakeholder with regards to this study process. In the last year, we wrote several comment letters and testified at hearings. The Plan, in its new iteration, on the whole, appears to be a thoughtfully crafted. We have a few suggestions for improvement, however—although we feel these can be accomplished internally without coming back to the Board of Trustees. *In short: we support the Plan.*

Studies that should be incorporated into the Plan:

- The Plan would be better informed had the authors included the only other published study on human/lion interactions (Sweanor et al. 2008), rather than claiming that no studies of lion-human interactions have been done. In that study, 10 lions were radio collared and their behavior monitored relative to human activity. The lions typically avoided humans—although they were often in proximity to humans. Therefore, the DOW cannot claim that "80% of all cougars in the study area will interact negatively with humans" (Plan at 19). A more realistic assumption, based on an empirical study, indicates that probably *no* cougars will negatively interact with a human during the course of the study.
- The Plan claims that only one other study has looked at emigration and immigration rates (Sweanor et al. 2000). In fact, other recent studies have (i.e., Logan and Sweanor 2001, Lambert et al. 2006, Stoner et al. 2006, Robinson et al. 2008).

- The DOW suggest that cougars may contribute to a "predator pit" (overkilling their prey base) without also mentioning that cougars are important in the function of ecosystem health such as maintaining vibrant riparian corridors in desert ecosystems (Ripple and Beschta 2006), and that carrying capacity (that is, food availability) is more important for prey populations than is predation (i.e., Ballard et al. 2001, Cougar Management Guidelines Working Group et al. 2005).
- Although the DOW has no empirical data for the size of Colorado's lion population, the agency has conducted some modeling using GIS data that should inform the potential population size on the Front Range.

The Plan has several positive aspects that we wish to highlight. Gathering these data will not only help improve the body of scientific literature, it gives decision makers some good guidance:

- Monitoring kitten survival, dispersal, and settlement (Plan at 5);
- Determining diet composition and amount of predation on ungulates and other prey (Plan at 8-12);
- Using GPS data and non-invasive sampling techniques (rather than recapturing lions) to see if useful data can be gathered (Plan at 12-16);
- Trying a novel approach to evaluating the lion population size using the GPS collars along with other techniques such as camera traps, scats, and lures (Id.);
- Acknowledging the public's support for co-existence education rather than emphasizing lethal methods, incorporating the public attitude survey (Corona Research 2006), and incorporating the DOW's Directive 20 (human-lion interaction protocols);
- Using radio-collared lions (not uncollared lions) to determine if aversive conditioning techniques work;
- Using aversive conditioning on lions in undesirable areas rather than any random lion; and
- Acknowledging that there are several inherent problems associated with relocating lions.

Thank you for giving WildEarth Guardians this opportunity to comment. If you have questions or comments, please do not hesitate to contact us.

Sincerely yours,

Wendy Keefover-Ring, Director, Carnivore Protection wendy@wildearthguardians.org

303.819.5229

Bibliography:

- Ballard, W. B., D. Lutz, T. W. Keegan, L. H. Carpenter, and J. C. deVos. 2001. Deer-predator relationships: a review of recent North American studies with emphasis on mule and black-tailed deer. Wildlife Society Bulletin 29:99-115.
- Corona Research. 2006. Public Opinions and Perceptions of Mountain Lion Issues, Statewide Summary. <wildlife.state.co.us/NR/rdonlyres/B3DE2DB6-AE25-4B8B-9676-B1A3007277F8/0/MountainLionSurveyResults.pdf>.
- Cougar Management Guidelines Working Group, T. Beck, J. Beecham, P. Beier, T. Hofstra, M. Hornocker, F. Lindzey, K. Logan, B. Pierce, H. Quigley, I. Ross, R. Sparrowe, and S. Torres. 2005. Cougar Management Guidelines. WildFutures, Bainbridge Island, WA.
- Lambert, C. M. S., R. B. Wielgus, H. S. Robinson, D. D. Katnik, H. S. Cruickshank, R. Clarke, and J. Almack. 2006. Cougar Population Dynamics and Viability in the Pacific Northwest. Journal of Wildlife Management 70:246-254.
- Logan, K. A. and L. L. Sweanor. 2001. Desert puma: evolutionary ecology and conservation of an enduring carnivore. Island Press, Washington, DC.
- Ripple, W. J. and R. L. Beschta. 2006. Linking a cougar decline, trophic cascade, and catastrophic regime shift in Zion National Par. Biological Conservation 133:397-408.
- Robinson, H. S., R. B. Wielgus, H. S. Cooley, and S. W. Cooley. 2008. Sink Populations in Carnivore Management: Cougar Demography and Immigration in a Hunted Population. Ecological Applications 18:1028-1037.
- Stoner, D., M., M. L. Wolfe, and D. Choate. 2006. Cougar Exploitation Levels in Utah: Implications for Demographic Structure, Population Recovery, and Metapopulation Dynamics. Journal of Wildlife Management 70:1588-1600.
- Sweanor, L., K. Logan, J. Bauer, B. Millsap, and W. Boyce. 2008. Puma and Human Spatial and Temporal Use of a Popular California State Park. 72:1076-1084.